

Warren Unit #147

PROPOSED CASING & CEMENT PLAN

Surface casing size:	8-5/8", 24#, J-55, ST&C	Casing OD:	8.625 in
Surface casing depth:	1,500 ft	Casing ID:	8.097 in
Hole size:	12.25 in	Shoe jt length:	40 ft
Static temperature:	89 deg F	Lead Excess:	101 %
Circulating temperature:	85 deg F	Tail Excess:	106 %
Lead:	465 sx	Cl C + 0.25 pps Cello Flake + 0.005 gps FP-6L + 2% Sodium Metasilicate	
Tail:	200 sx	Cl C + 2% CaCl + 0.005 gps FP-6L	
Properties		Lead	Tail
Slurry Weight (ppg)		12.4	14.8
Slurry Yield (cfps)		2.15	1.34
Mix Water (gps)		12.33	6.35
Pump time - 70 BC (HH:MM)		6:25	2:20
Free Water (mls) @ 80 deg F @ 90 deg angle		0	0
Fluid Loss (cc/30 min) @ 1000 psi and 80 deg F		854	900
Compressive Strength (psi)			
12 hrs @	89 deg F	124	1200
24 hrs @	89 deg F	250	2500

Production casing size:	5-1/2", 17#, J55, LT&C	Casing OD:	5.500 in
Production casing depth:	7,250 ft	Casing ID:	4.892 in
Hole size:	7.875 in	Shoe jt length:	80 ft
Static temperature:	124 deg F	Lead Excess:	51 %
Circulating temperature:	117 deg F	Tail Excess:	51 %
Lead:	580 sx	50:50 Poz:Cl C + 5% bwow NaCl + 0.25 pps Cello Flake + 0.005 gps FP-6L + 10% Bentonite	
Tail:	300 sx	15:61:11 Poz:Cl C:CSE + 5% bwow NaCl + 1% FL-62 + 0.005 gps FP-6L	
Properties		Lead	Tail
Slurry Weight (ppg)		11.85	13.6
Slurry Yield (cfps)		2.41	1.49
Mix Water (gps)		13.79	7.31
Pump time - 70 BC (HH:MM)		2:58	2:31
Free Water (mls) @ 80 deg F @ 90 deg angle		1	0
Fluid Loss (cc/30 min) @ 1000 psi and 80 deg F		792	62
Compressive Strength (psi)			
12 hrs @	124 deg F	50	1013
24 hrs @	124 deg F	175	1875